5/1/40

PREVENTION OF BARKBEETLE OUTBREAKS

In the intensively used summer home and recreational areas of the San Bernardino mountains, the control of barkbeetle damage can be considered both as a community program and a responsibility of individual land owners. To keep these areas protected against serious loss of pine trees due to insects, both direct and indirect control measures can be applied.

Direct control measures consist of locating the infested trees and destroying the barkbeetle broods, usually by peeling and burning the infested bark; the best results are secured under a well organized community campaign planned so as to cover the entire infested territory during the winter period while the beetles are inactive.

Indirect or prevention measures apply mainly to the summer period while the insects are active. These methods are concerned with conditions that arise through the intensive use of recreational areas, mainly from the cutting of green trees during construction and improvements on lots and tracts. Precautionary measures to prevent the hazard of insect outbreaks resulting from these operations can best be applied by the individual owners.

Barkbeetles will attack and multiply their numbers in green logs and limbs of trees that have been recently cut. The clearing for rights of way and building sites may thus provide the material in which tree-killing beetles breed up their numbers and then emerge to attack standing green trees either on the site or elsewhere in the area.

The problem of preventing conditions highly favorable to the increase of barkbeetle infestations is a complicated one involving consideration on the part of the owner as to the character and timing of precautionary measures. The following are suggestions which if followed can do much to minimize the threat of new outbreaks.

TIMING OF CUTTING OPERATIONS AND DISPOSAL OF SLASH

1. All work which may entail the injury or removal of green trees, or result in the accumulation of green logs and slash in and around recreational forest areas, should be done during the season of relative inactivity of barkbeetle species (November through March). When cutting during the summer season is necessary, peeling of the logs within a few days after cutting will prevent attack and development of broods.

2. Green logs and slash produced during the winter season should either be removed from the area or burned, peeled, cut up into small pieces of firewood and thoroughly dried before summer. Summer slash should be disposed of as promptly as possible. These measures are necessary to prevent attack or development of barkbeetle broods.

3. Outside of the intensively used summer home areas, such as logging or wood cutting operations, some infestation will result in the slash that is produced. However, if a continuous supply of green logs and slash is available for attack the threat is lessened, as the beetles will keep on infesting the green material. It is from cutting operations that are discontinued in mid season that the more serious damage results.

As a general rule unshaded slash and lopped tops absorb more beetles than are produced in them due to rapid drying out of the inner bark before the broods complete development. Such slash merely serves to concentrate barkbeetle populations in the cutting area and damage does not usually occur in green trees unless no new slash is supplied to absorb the populations.

CONDITIONS THAT SHOULD BE WATCHED CLOSELY

GREEN TREES FELLED AND LEFT UNTREATED: These attract beetles which not only may infest the felled trees but also may kill adjacent standing trees.

ROAD CUTS: If cuts expose or injure root systems, the injured trees are weakened and barkbeetle attacks are invited.

FILLS: The filling in of earth around green trees prevents necessary aeration of roots, weakens the trees and invites insect attacks.

GREEN FIREWOOD: The tiering of green pine firewood in a pine grove attracts beetles which may attack and kill nearby healthy green trees.

USE OF CLIMBERS: If green trees are used for poles for light and telephone lines, these should be put up during the winter when there is no beetle attack going on. Injury to green trees caused by the use of climbers during the flight season may cause sufficient injury to result in the attraction of barkbeetles and the death of the tree.

HACKING, NAILING AND OTHERWISE INJURING GREEN TREES: Thoughtless actions often seriously injure trees around cabins and lead to infestation and death. Trampling of ground and other adverse conditions resulting from intensive use of stands in recreational areas are serious enough without adding to their effects by unnecessary injury.

PARKING AREAS: Trees in parking areas should be protected from injuries resulting from careless driving.

CONSTRUCTION: Green stumps, logs and slash from freshly cut trees and fresh lumber attract barkbeetles, particularly the turpentine beetle. Those insects attack nearby green trees and weaken or kill them. If the preparation of building sites, and construction of buildings, is not feasible during the winter period, all green trees cut or injured in such operations should be peeled, burned, or otherwise treated to prevent attraction and attack by insects.

GROUP KILLS: The attraction of insects to the vicinity of one infested tree often results in the killing of a group of trees. Actions leading t the death of one tree from injury may actually lead to the death of several previously uninjured trees.

THE CHEAPEST AND BEST WAY FOR YOU TO PROTECT YOURSELF AND YOUR NEIGHBORS FROM UNNECESSARY LOSS OF TREES IS TO DO ALL YOU CAN TO PREVENT BARKBEETLE INFESTATIONS.

Forest Insect Laboratory
Berkeley, California

May 1, 1940

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
FOREST INSECT LABORATORY - BERKELEY, CALIFORNIA

FOREST INSECT SURVEY

ARROWHEAD INFESTATION AREA

SAN BERNARDINO COUNTY, CALIFORNIA
SAN BERNARDINO MERIDIAN

SCALE
In 0 ½ 1 2 3 Miles

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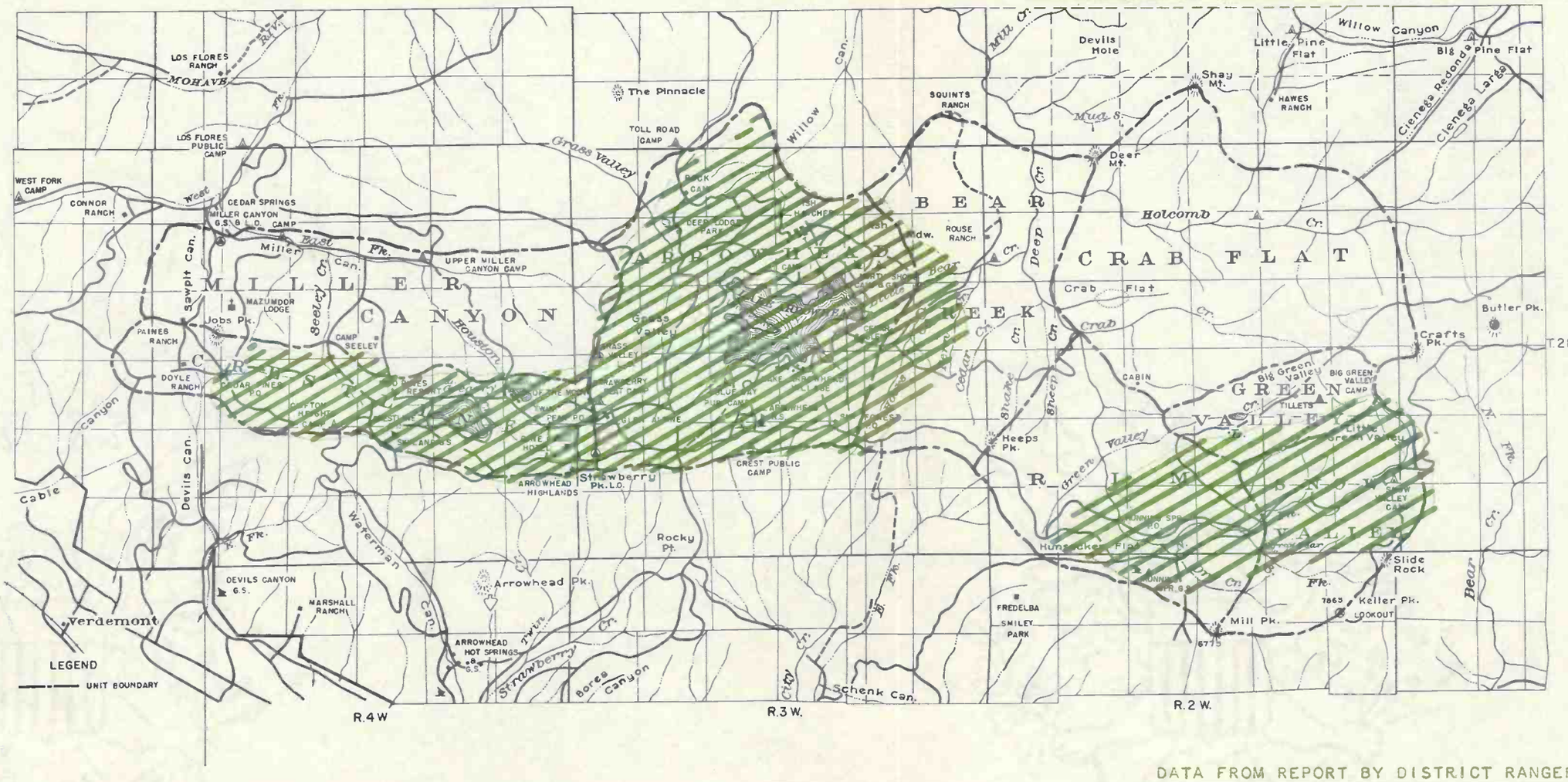
SUMMARY OF FOREST INSECT CONTROL WORK
SAN BERNARDINO FLOOD CONTROL DISTRICT, ZONE 5
JANUARY 15 TO MARCH 20, 1940

INFESTATION UNIT	TREATED		ACREAGE COVERED
	TREES	POLES	
CRESTLINE	174	167	7,700
ARROWHEAD	259	249	13,500
BEAR CREEK	14	16	1,300
RIM, GREEN & SNOW VALLEY	97	10	11,900
	544	442	34,400

AREA COVERED BY CONTROL WORK



DATA FROM REPORT BY DISTRICT RANGER
GEORGE LANG, MARCH 22, 1940.

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